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10/586,427	04/05/2007	Mikhail Andreevich Brabfilev	VO-769	4879

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HOFFMAN ESTATES, IL 60195

EXAMINER
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NGUYEN, PHONG H

ART UNIT	PAPER NUMBER
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3724

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/586,427

Applicant(s)

BRABFILEV, MIKHAIL  
ANDREEVICH

Examiner

PHONG H. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/25/2008</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to under 37 CFR 1.71 for not clearly describing the shape of the right and left teeth 2 and 3. Page 11 of the specification describes the right and left teeth 2 and 3 as the right and left **HELICALLY**-shaped teeth. However, the drawings do not show the **HELICAL** shape of the teeth. It is unclear what the shape of the teeth is and whether this is an error in translating the specification from Russian into English.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Claim 1 will be examined as best understood by the Examiner.

2. The abstract is objected to because it contains more than 150 words. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, (1) the helical shape of the teeth 2 and 3, (2) one plane lateral surface which can be sharpened in line 9, and (3) one radially convex lateral surface which cannot be sharpened must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

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4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 calls for helical shaped cutting teeth 2 and 3. However, the specification and the drawings do not provide enough information on the shape of the cutting teeth 2 and 3. The cutting teeth 2 and 3 in the drawings do not seem to have a helical shape.

Due to lacking a concise description of the shape of the cutting teeth, claim 1 will be examined with the presumption that each cutting tooth 2 or 3 has two cutting portions A and C and the patentability of the helical shaped the cutting teeth cannot be commented on at this time.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "other hard and ultra-hard materials" in lines 6 and 7 renders the claim(s) indefinite because it is unclear what kind of materials are included or excluded from the claim.

The term "classical tooth" in line 19 renders the claim(s) indefinite because it is unclear whether the Applicant means the chipper tooth is conventional tooth and well known in the art or something else.

Line 16 recites the limitation "the improvement comprising". There is insufficient antecedent basis for this limitation in the claim. Since the Applicant uses the term "the improvement comprising", it is unclear whether all the limitations preceding the term "the improvement comprising" is conventional art.

Lines 16 and 17 recite the limitation "the right saw teeth and the left saw teeth". There is insufficient antecedent basis for this limitation in the claim.

Lines 7 and 8, the phrase "right and left planing/cutting teeth in the form of a disc part" is confusing.

Line 13, the phrase "or in both directions" is confusing. It appears that the front edge of the chipper tooth 4 faces in one direction but not in both directions.

Line 17 recites the limitation "the saw body". There is insufficient antecedent basis for this limitation in the claim.

Line 18 recites the limitation "the front chipper parts". There is insufficient antecedent basis for this limitation in the claim.

Line 19 recites the limitation "the rear planing/cutting part". There is insufficient antecedent basis for this limitation in the claim.

Line 21, the phrase "the helically shaped teeth are an only type of teeth" is confusing. As shown in Figs. 1-4 of the disclosure, the teeth A and B do not look like a helix and they are totally different in shapes.

Line 21 recites the limitation "the helically-shaped teeth". There is insufficient antecedent basis for this limitation in the claim. It is unclear that the Applicant refers to the right and left saw teeth or the front chipper teeth.

Lines 22-27 recite the limitation "the front chipper and the rear planning/cutting teeth parts". There is insufficient antecedent basis for this limitation in the claim.

Lines 25 and 26 recite the limitation "the rear planning/cutting parts of the teeth". There is insufficient antecedent basis for this limitation in the claim.

It appears that claim 1 is a literal translation into English from a Russian document and is replete with antecedent basis type of errors and confusing phrases. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The Examiner has tried his best to point out all possible error. Applicant's cooperation is requested in correcting any error of which Applicant may become aware in the claim.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Huntington (4,782,731).

Huntington teaches a circular plane saw having a steel saw blade (it is well known that saw blades are made from steel) with teeth groups made of a hard material (metal in general or steel is considered a hard material) positioned at a periphery, right and left planning/cutting teeth (16 and 16'), in a form of a disc part having one plain lateral surface (top surface of the teeth 16 and 16'. See Fig. 1.) which can be sharpened, and one radially convex lateral surface (the outer curved surface of the tooth 16 or 16'. See Fig. 2), which cannot be sharpened, and chipper teeth 40, each with a straight chipper edge (the top edge of the tooth 40 as best seen in Figs. 1 and 4), which follow the group of planning/cutting teeth of one standard size and thickness, positioned in group (with the planning/cutting teeth 16 and 16'), with front edges facing toward a working rotation of the saw, and with the working edges, sharpened and a thickness of the chipper teeth 40 less than that of the right and left planing/cutting teeth (16 and 16'. See Figs. 3 and 4.), the right saw teeth and the left saw teeth (16 and 16') positioned alternatively on the saw body and with the front chipper teeth formed as a conventional tooth and the rear planning/cutting teeth (it is to be noted that the tooth 16 is behind the tooth 40 when the saw blade rotates in a counter-clockwise direction<sup>14</sup>. See Fig. 1) formed as a disc segment with a height of an active area less than a radius of a give disc part (since the active area is not clearly described, the inner curved surface of the tooth 16 or 16' is considered an active area and the height of that area is less than the radius of the saw



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blade which is defined by the top edge of the outer curved surface of the tooth 16 or 16'), the front chipper 40 and the rear planing/cutting teeth parts one of a different thickness (see Figs. 3 and 4) with their tips positioned on one of circumferences and diameters of the saw (tips of chipper teeth 40 and planing/cutting teeth (16 and 16') being on two different circumferences of the saw are best seen in Figs. 1 and 3), and the rear planing/cutting parts are sharpenable on plain sides (front side 22 of tooth 16 or 16' is sharpenable).

See Figs. 1-5.

It is to be noted that the limitation of the helical shape of the teeth cannot be commented on at this time due to lacking of a good description of the invention.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Singh et al. Curtsinger et al. and Nunweiler teach circular saw blades of general interest.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHONG H. NGUYEN whose telephone number is (571)272-4510. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. H. N./  
Examiner, Art Unit 3724  
May 27, 2008